



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 21, 2015
SUBJECT/REPORT NO:	Frozen Water Services and Watermain Repair Funding (PW15069) - (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nick Winters (905) 546-2424, Extension 1474 Andrew Grice (905) 546-2424, Extension 1461
SUBMITTED BY:	Gary Moore, P. Eng. Acting General Manager Public Works Department
SIGNATURE:	

RECOMMENDATION

That the budget in Project ID 5141560750 (2015 Unscheduled Valve, Hydrant, Watermain & Miscellaneous Water Replacement Program) be increased from \$2,500,000 to \$7,350,000 and that this increase of \$4,850,000 be funded by a transfer from Water Reserve #108015.

EXECUTIVE SUMMARY

With the recurrence of severe cold weather conditions during the winter of 2015, there was a significant increase in both watermain breaks and frozen water services throughout the City of Hamilton. During a normal winter Hamilton Water deploys up to eight crews for watermain break repairs and thawing of frozen water services. Four of these crews are made-up of City staff while the other four are supplied through a service contract. However, during the winter of 2015, Hamilton Water deployed as many as 23 crews for frozen water service and broken watermain response. The additional 15 crews were retained via Procurement Policy #10 – Emergency Procurements. It is the procurement of these additional contractors, combined with the significant increase in work assigned to the City's annual service contractor that resulted in the dramatic increase in winter 2015 emergency water expenses.

As a result of the increased use of contracted services and in order to ensure resources remain available for the balance of 2015 and the winter of 2016, staff recommend that funds be allocated as indicated in Table 1:

**SUBJECT: Frozen Water Services and Watermain Repair Funding
(PW15069) - (City Wide) - Page 2 of 4**

Table 1: Winter 2015 Funding Allocation

Account	Budget (\$)	Proposed Budget (\$)	Budget Increase (\$)	Funding Source
5141560750 Unscheduled Valve, Hydrant, Watermain, & Misc. Water Replacement	2,500,000	7,350,000	4,850,000	Water Reserve 108015

Alternatives for Consideration – See Page 3

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The recommendations in this report require the allocation of \$4.850 million from the Water Reserve #108015. The current uncommitted balance in the Water Reserve 108015 is approximately \$20.5 million, before taking into account the \$4.850 million in funding being recommended in this report PW15069.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

The winter of 2015 brought extremely cold temperatures to Ontario and the month of February 2015 was one of the coldest months ever recorded by Environment Canada. The extreme low temperatures and the length of time with which they persisted created a significant increase in both broken watermains and frozen water services throughout the City. This increase in winter work is summarized in Table 2:

Table 2: Winter 2015 Summary

Service	2009 - 2013 Average	2014	2015
Water Main Breaks	150	277	209
Frozen Service Calls	30	674	1213
Frozen Services ¹ (Unique Addresses)	5	197	569
Water Delivery	< 1	204	1863

¹ This is the number of unique addresses at which City staff or a City contractor thawed a frozen service.

During a normal winter Hamilton Water deploys up to eight crews to deal with watermain break repairs and thawing of frozen water services. Four of these crews are comprised of City staff, and the other four are supplied through an annual service contract. However, to address the increase of watermain breaks and frozen service requests in winter 2015 Hamilton Water deployed as many as 23 crews. Fifteen of these crews were retained via Procurement Policy #10 – Emergency Procurements. In addition, it was necessary to use the services of our annual service contractor at frequencies above and beyond what was approved as part of the budget deliberation process.

Over the duration of the cold weather, Hamilton Water expended approximately \$3.9 million through the use of external contractors to undertake both water service thawing and watermain repairs. Activity for the City's annual watermain repair contractor grew from approximately \$110,000 per month (pre-2014 average) to almost \$525,000 per month throughout the period from January to April.

The recommendations contained in this report support the Mission Statement of the Public Works Business Plan "Innovate Now" - "Provide safe, strategic and environmentally conscious services that bring our communities to life".

As a result of the foregoing, staff are seeking approval of the recommendations contained in this report.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Not Applicable

RELEVANT CONSULTATION

The Corporate Services Department, Financial Planning & Policy Division was consulted in the development of this report. Staff verified that there are sufficient funds available from Reserve #108015 – Waterworks Capital Reserve.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Hamilton Water staff analysed the historical spending associated with the use of these contracted services for the purpose of watermain repair and thawing of frozen water services. Based on our understanding of past experience and in consideration of what has already been expended to respond to winter conditions, staff determined that \$4.850 million will be required to ensure resources are available for the balance of the 2015/2016 contract term.

A summary of the expenditures includes:

- Expenditures to repairs broken watermains/hydrants/thaw frozen water services/miscellaneous repairs during the winter of 2015 \$1,250,000
- Forecast expenditures to end of contract term \$3,600,000

ALTERNATIVES FOR CONSIDERATION

Approximately \$2.3 million of the requested funding has already been spent for emergency watermain repairs and frozen water service thawing as previously communicated in Information Update (HW.15.06). Should Council not approve the recommendations in this report, funding may be allocated from other capital budgets to fund the over expenditure however this would likely result in significant delays to those projects.

Additionally, should Council not approve that portion of the recommendation that funds the service contract going forward, approximately \$2.9 million, all future watermain breaks would have to be repaired by City forces which would likely result in prolonged

service disruptions as Hamilton Water does not have sufficient internal resources to ensure an acceptable and customary level of service in this regard.

ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN

Strategic Priority #1

A Prosperous & Healthy Community

WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.

Strategic Objective

1.7 Responsively and effectively maintaining the City's infrastructure.

By providing the emergency services necessary to maintain the water distribution system and water services, the City is ensuring residents and businesses continue to receive access to a safe and secure water supply.

APPENDICES AND SCHEDULES ATTACHED

None